

WATERLOGS JANUARY 2017



Today, the Bay of Quinte is a healthy and vibrant ecosystem. Now, we must focus on keeping it that way. The RAP is developing long-term monitoring and management strategies to ensure the Bay remains healthy in the future.

A SUMMER OF SCIENCE - MNRF - BAY OF QUINTE FISHERIES



This is the last article in our Summer of Science series. To remove the Bay from the bi-national Areas of Concern list, all the criteria outlined for the 11 environmental challenges identified for the Bay must be addressed.

To accomplish this, numerous BQRAP partner agencies are on the water collecting research data for a variety of water quality indicators like: fish populations, wetland habitat, phosphorus levels, algae species, and a host of other indicators.

The Ministry of Natural Resources and Forestry stationed at the Glenora Fisheries Station in Prince Edward County has a long history of assessing the fishery in the Bay of Quinte. Their assessment programs address the criteria established for: degradation of fish and wildlife populations, loss of fish and wildlife habitat and restrictions of fish and wildlife consumption.



In the 1990s, degradation of fish and wildlife populations and loss of fish and wildlife habitat were identified as problem areas, basically, due to excess amounts of algae. Only a couple of fish species could survive and thrive in the bay at that time. Also, the algae blocked sunlight preventing aquatic plant growth - homes for fish. Today, there is less algae, due to reduced phosphorus levels in the bay, improving water clarity. This allows numerous species of fish to thrive in the bay and aquatic plants to grow, providing hunting grounds for predators like walleye and bass and homes for prey like perch and sunfish. As well, due to past industrial practices certain species of fish were identified as having raised levels of industrial contaminants. Today, contaminant levels in fish are greatly reduced and fish in the Bay of Quinte are healthy and safe to eat. Refer to the MOECC Guide to Eating Ontario Fish for consumption levels for numerous fish species in the Bay and throughout the province.



Today, the Bay of Quinte is known as a world class walleye and bass fishery. To ensure Bay of Quinte fish remain healthy and diverse the Ministry of Natural Resources and Forestry (MNRF) operate a nearshore fish community trapnet program.

Trapnets are set overnight at randomly identified sites within the upper Bay of Quinte. When the nets are lifted the different species are counted. Some fish are taken back to the Glenora Fisheries Station where more detailed biological sampling (length, weight, age, tissue sample, etc.) is conducted.



This information is used to compare trends over time, or compared to other areas, and the health of the upper Bay of Quinte is evaluated. These comparisons provide information to fisheries managers so they can take actions to address any issues that are identified. An example of a management action is modifications to fishing regulations.

Tissue samples of some fish are sent to the Ministry of the Environment and Climate Change (MOECC) laboratories where they evaluate contaminant levels in the fish. The data is published by the MOECC in the Guide to Eating Ontario Fish.

The nearshore trapnetting program along with other MNRF assessment projects have tracked many changes in the Bay over the years. In general, the nearshore fish community in the Bay of Quinte is one of the healthiest in Lake Ontario, says Jim Hoyle, MNRF, Glenora."

In partnership locally with Lower Trent Conservation and Quinte Conservation



Starting in January 2017, Plan 2014 will come into effect, it is the result of more than 16 years of scientific study, public engagement and governmental review. Plan 2014, will change a water level regulating system that has been in place on the Great Lakes and St Lawrence River since 1958.

Water levels on Lake Ontario and the upper St. Lawrence River are controlled by the Moses Saunders Dam at Cornwall. Plan 2014 will allow for more natural water level fluctuations. For decades, there have been concerns the old flow controls have been damaging the ecological diversity of coastal wetlands on Lake Ontario and the upper St Lawrence. The new plan will allow for great fluctuations between the lake's highs and lows restoring the health of the lake. Fostering the conditions needed to restore 26,000 hectares (64,000 acres) of

coastal wetlands and improve habitat for fish and wildlife. The plan will also frequently extend the recreational boating season, better maintain system-wide levels for navigation and increase hydropower production.

The International Joint Commission was established under the Boundary Waters Treaty of 1909 to help the United States and Canada prevent and resolve disputes over the use of the waters the two countries share. Its responsibilities include considering applications for projects that affect the natural levels and flows of boundary waters. For more information, visit the Commission's website at www.ijc.org

CITIZEN SCIENCE

Bay of Quinte Remedial Action Plan

Volunteer as a Citizen Scientist

Learn how you can be a citizen scientist for the Bay of Quinte by volunteering as a Marsh Monitor.



Pied-bill Grebe - (*Podilymbus podiceps*)

Monday, March 6, 2017 - 7:00 p.m.
Quinte Conservation, 2061 Highway #2

As a Marsh Monitor you will help us learn about the health of our wetlands by observing for birds and frogs.

Quinte area naturalist, Terry Sprague will explain, **FrogWatch Ontario**, which is great for the kids due to its simplicity and the more extensive **Marsh Monitoring Program** that includes both birds and frogs. You can monitor for one program or do both.

For more information contact Terry Sprague at
T: 613-848-4549 E: tsprague@xplornet.com
W: www.naturestuff.net or www.bqrap.ca

In partnership locally with Lower Trent Conservation and Quinte Conservation

